

Date: Tuesday, 4/18/2006 10:02:34 AM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: TUBE ASSEMBLY
Job Number	: 26669	Part Number	: D3304044
Estimate Number	: 10426	Drawing Number	: D3304 REV. B
P.O. Number	: N/A	Project Number	: N/A
This Issue	: 4/18/2006	Drawing Revision	: B
Prsht Rev.	: NC	Material	: N/A
First Issue	: N/A	Due Date	: 5/20/2006
Previous Run	: 23756	Qty:	4
Written By	:	Um:	Each
Checked & Approved By	:		
Comment	: Est: D 04/11/26 Revised Steps 7 KJ/JLM		

## Additional Product

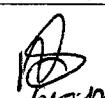
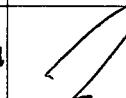
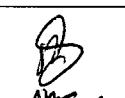
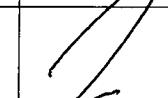
Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M304TR0875W065	SS TUBING 
		Comment: Qty.: 1.9469 f(s)/Unit Total : 7.7876 f(s) Material: AISI 304/316 SS tubing 0.875" x 0.065" wall (M304TR0.875W.065) Batch: <u>M16258</u> 06/06/14
2.0	HARDINGE	HARDINGE CNC LATHE SMALL 
		Comment: HARDINGE CNC LATHE SMALL 1- Cut blank: 22.00" as per Dwg D3304 2- Turn as per Folio FA458 and Dwg D3304 3- Deburr  06/06/14 4
3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE 
		Comment: INSPECT PARTS AS THEY COME OFF MACHINE  06/06/14 4
4.0	QC8	SECOND CHECK 
		Comment: SECOND CHECK  J.G 06/06/14 4
5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1 
		Comment: SMALL & MEDIUM FAB RESOURCE 1 1- Drill as per Dwg D3304 using drill Jig D3304-T1 2- Form as per Dwg D3304 3- Cut tube to length as per Dwg D3304 4- Deburr  FT 06-10-26 06-10-11  PTO

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3304-044 PAR #: N/A Fault Category: Prod / PAB Ass' <sup>Med & Small</sup> NCR: Yes No DQA:  Date: 06/10/27  
 QA: N/C Closed:  Date: 06/10/27

NCR: 26669		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/10/27	S.0	1 tube was cut 1" short of the total length. Employee cut off the bend line by mistake on the top section.	 B. Eng	Scrap: destroy.	FF 06.10.27	 06.10.27	 B. Eng	 06.10.27
06/10/27	5	1 piece <del>end</del> <del>it</del> was out of Tolerance	 B. Eng	Scrap: destroy	FF 06/10/27	 06.10.27	 B. Eng	 06.10.27

NOTE: Date & initial all entries

Date: Tuesday, 4/18/2006 10:02:34 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 26669

Part Number: D3304044

Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SD 06/10/26 (2)

7.0 D33048

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bracket

Pick:

Qty	Part Number	Description	Batch
1	D3304-8	Bracket	B25157

PD 06-10-26 (2)

8.0 LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004

PD 06-10-26 (2)

9.0 QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

VA 06/10/26 (2)

10.0 POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

FC 06 10 27 (2)

11.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

FF 06-10-27 (2)

12.0 BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

PIP PIN

Pick:

Qty	Part Number	Description	Batch
1	BLBS-0016	Pip Pin	M100726

FF 06-10-27 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 4/18/2006 10:02:34 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 26669

Part Number: D3304044

Job Number:



Seq. #: Machine Or Operation:

Description :

13.0 CBL460 Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description	Batch
2	CBL-460	Loop Sleeve	M100644

FF 06-10-27

2

14.0 CBL1240 Cable



Comment: Qty.: 1.0416 f(s)/Unit Total : 4.1664 f(s)

Cable

Pick:

Qty	Part Number	Description	Batch
12.5"	CBL-1240	Cable	M102439

FF 06-10-27

2

15.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

Identify as D3304-044

FF 06-10-27

2

16.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 06/10/27

2

17.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: 10 6/10/27 (2)

18.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

(3) 06/10/27

(3)

u 06/0/27

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	26669
Description: Tube Assembly	Part Number:	D3304-3
Inspection Dwg: D3304	Rev: B	Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

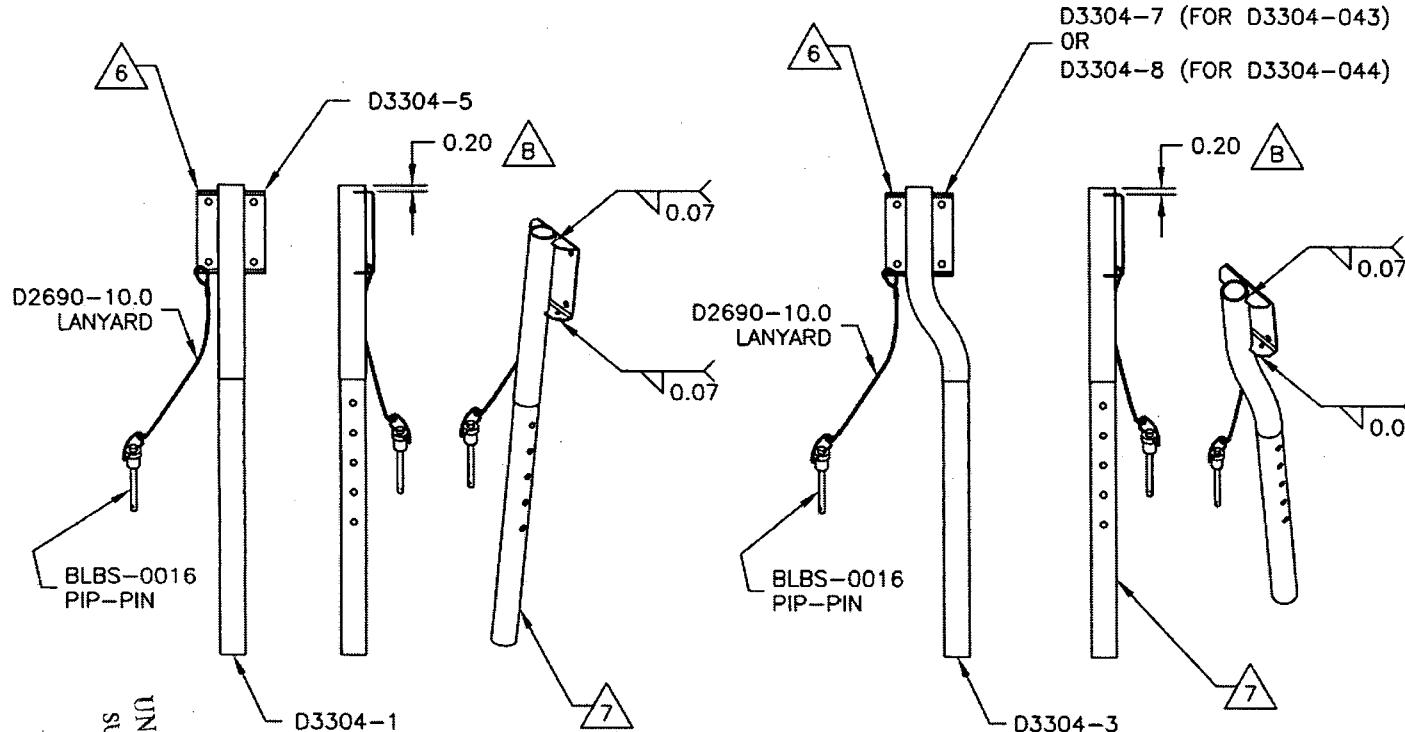
X First Article Prototype

Measured by:		Audited by:		Prototype Approval:	N/A
Date:	06/06/14	Date:	06/06/14	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.09.08	New Issue P/O D3304-043/-044	KJ/JLM	<i>[Signature]</i>
B	06.03.09	Dwg Rev updated	KJ/JLM	<i>[Signature]</i>

**DART**

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. D3304	REV. B	
DATE 05.07.15		TITLE TUBE ASSEMBLY	SHEET 1 OF 4	
A	04.08.18	NEW ISSUE	SCALE 1:6	
B	05.07.15	UPDATE DIMENSIONS; ADD D3304-7/-8		



**D3304-044 TUBE ASSEMBLY (SHOWN)**  
**D3304-043 OPPOSITE**

**RELEASED**  
25.08.11  
*H*

**D3304-041/-043/-044 NOTES:**

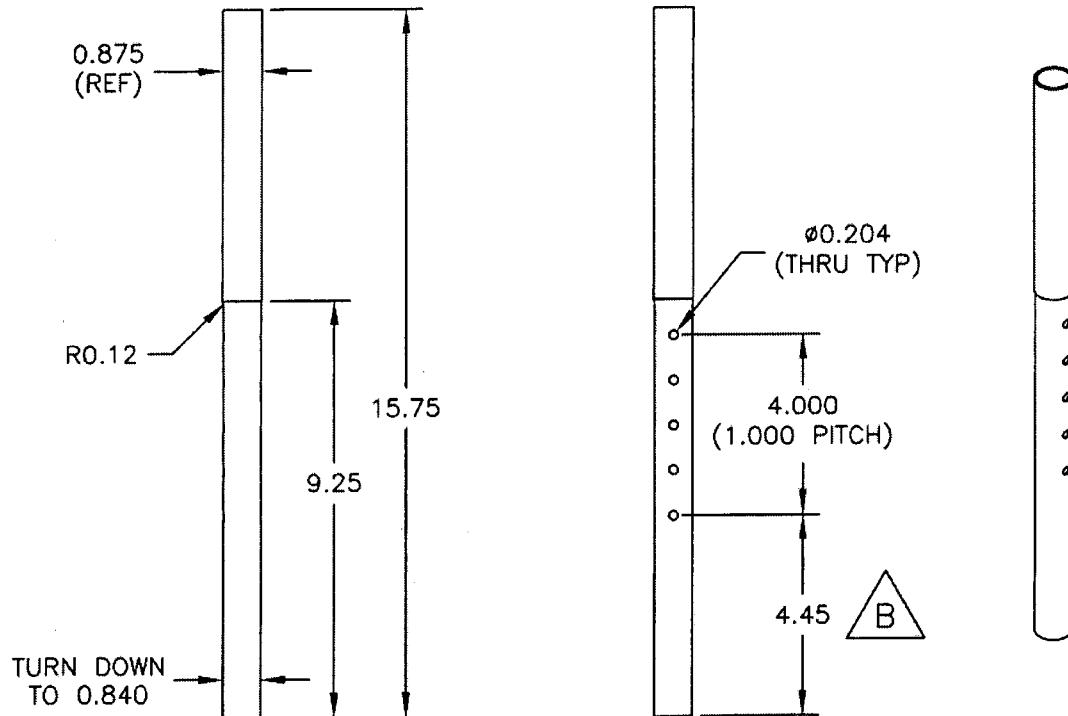
- 1) FINISH: POWDER COAT GREY SANTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"
- 7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *2669*

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**DART**

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[initials]</i>	APPROVED <i>[initials]</i>	DRAWING NO. D3304	REV. B SHEET 2 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4

**RELEASED**  
05-08-11 *[initials]***D3304-1 TUBE****D3304-1 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE Ø0.875 x 0.065 WALL (REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED SUBJECT TO AMENDMENT
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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WORK ORDER

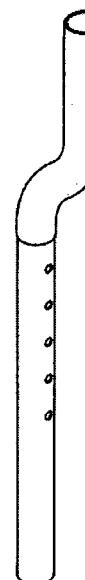
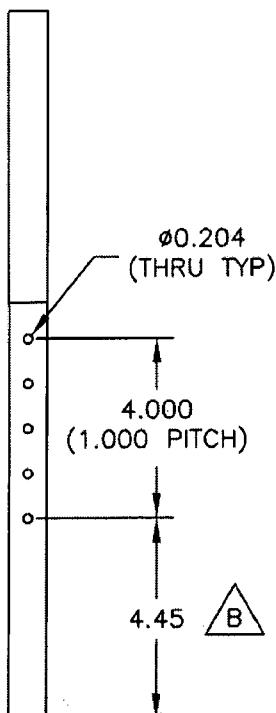
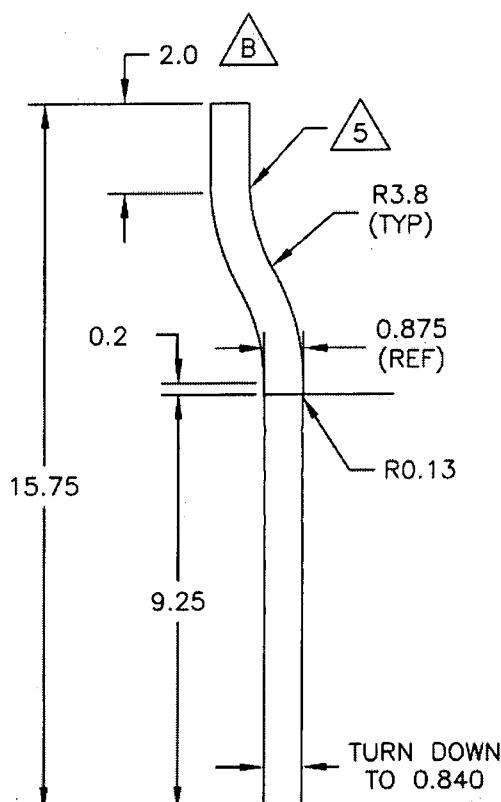
NO. *26669*

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**DART**

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 3 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4

**D3304-3 TUBE****D3304-3 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE Ø0.875 x 0.065 WALL (REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS UNCONTROLLED COPY
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

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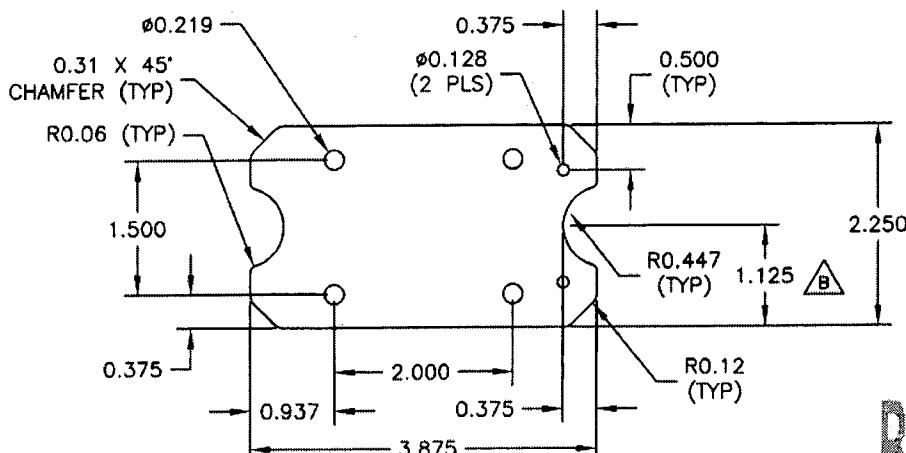
WITHOUT NOTICE

WORK ORDER

NO. 26669

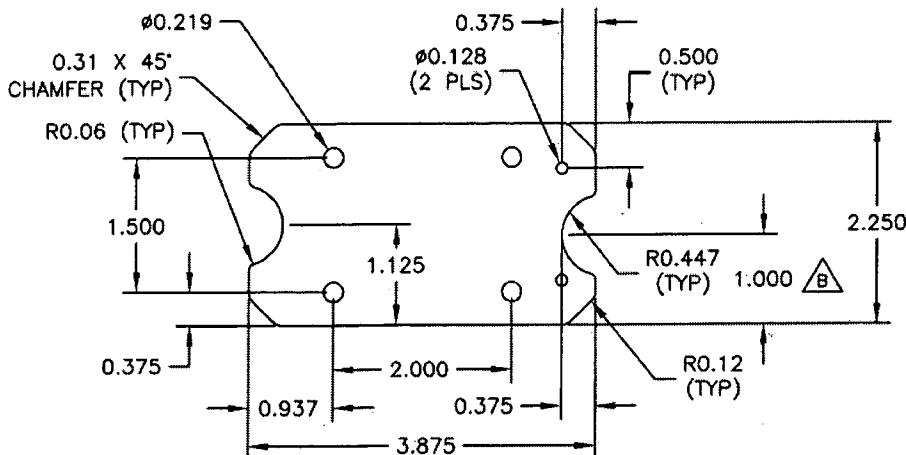


DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 4 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:2

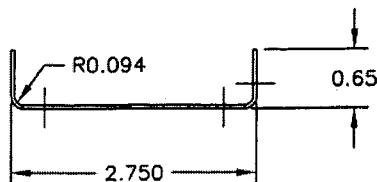


RELEASED  
05.09.11

D3304-5 FLAT PATTERN



D3304-7/-8 FLAT PATTERN



D3304-5/-7 BRACKET  
D3304-8 OPPOSITE

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WITHOUT NOTICE

WORK ORDER

NO. 26669

NOTES:

- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015